

# QUAKER Since 1888... Years and years of experience

Says Grandma Binney...

They say there's no substitute for experience. I guess that's why the QUAKER heater people seem like kinsfolk of mine. We've both had a lot of heater experience these past 60 years.

Bought my first QUAKER many years ago. I remember 'cause it was the year before the great blizzard . . . when over half the country

was snowed in, and frozen in, too.

A lot of folks in our town suffered for lack of enough

heat... but that first QUAKER heater of ours carried us through with nary a chill in the whole house! My! We were as proud as punch... and grateful, too.

Not much wonder we been usin' QUAKER heaters ever since.

### Oil heat Marnth without work...

When I hear folks talkin' about the "good old days," I just say "fiddlesticks... I'll take the good new days that started for me in 1927." Why 1927? Because that was the year I threw away my coal scuttle and wood ax and really started off on a heap o' livin'. 1927 was the year I bought my first QUAKER oil

heater... the FIRST one of its kind ever made. No more tendin' the fires several times every day and the last thing at night. No more long waits for the house to warm up. No more coal to shovel, wood to chop or ashes to carry! And even more important...

no more worryin' about the children catchin' cold on account of playing on the floor. Yes... our QUAKER

oil heater gave us a warmer, cleaner, healthier home. It cut

work. Gave me more time

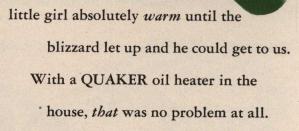
get out more because my QUAKER oil heater just seemed to take care of itself. My!

for other things. Now, I could

What a blessing QUAKER oil heaters have been to me.

Oil heat Dependable...

Our QUAKER oil heater has
always been so dependable that we
just take that feature of it for granted.
But having a heater that's
reliable might sometime mean the
difference between life and death!
Like the time my little granddaughter was so sick . . . just racked
with terrible chills. The doctor
was snowed in but phoned us to be sure and keep our



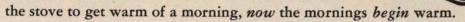
Her room was just as warm as a June mornin' and when the doctor got to us the next afternoon our patient was lots better. The doctor said that keeping her warm day and night had probably prevented a serious sickness. So, you see, it's mighty comfortin' to have an oil heater that's as dependable and reliable as our QUAKER has always been.

NE LA TA P. CA

### Oil heat Comfortable...

When the QUAKER oil heater came to our house, comfort came with it. Just think . . .

instead of traipsing out to the coal bin several times a day, now I merely turn a dial. Instead of crowdin' around



And it's just as comfortable 'way over there near the window as it used to be right smack dab against the old fashioned stove. That's because my new



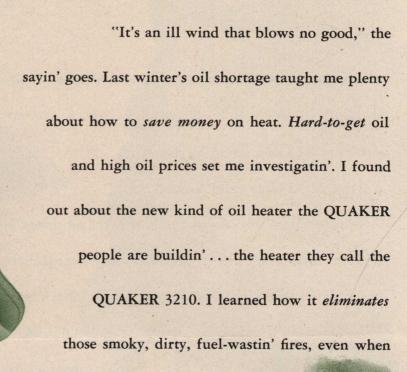
QUAKER has a heat circulator that forces heat all over the house.

Of course, when I need a little extra

quick beat, like when the children come in from school half frozen, I can open a side door that lets out floods of heat and warms the youngsters as quick as a wink.

And my new QUAKER has something that's a real lifesaver for folks who live in homes that have cantankerous chimneys... chimneys that just don't have enough draft to make a fire burn right. The QUAKER people call it QUAKERTROL and it sure solved our draft problem. The fire is always bright and clean and we're actually savin' enough on oil to pay for this grand heater. I'm sure proud of my new QUAKER.

### Dil heat Economical ...



my chimney isn't drawin' right. And

when the weather is snappin'-cold and downright blizzardy,

I get plenty of bone-warmin' comfort from my

new QUAKER. But the best thing of all is



that now I don't have to worry about always gettin' more fuel oil. My new QUAKER saves me so much more oil that a tankful seems to last twice as long as before. It's certainly a blessin' to have.

### INDEPENDENT LABORATORY TESTS PROVE AMAZING FUEL SAVINGS

Here's dramatic proof of the fuel savings possible with the new QUAKER 3210 oil heater. These tests have been verified by one of the world's largest engineering consultants. At each setting, both the QUAKER 3210 and the ordinary heater are burning the *same amount of oil*. Note the extra heat that you get with the QUAKER 3210 on the same amount of oil!

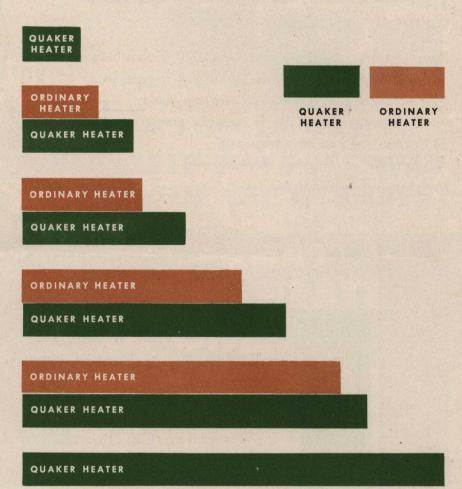
At the lowest flame setting, the QUAKER 3210 burns very little oil. The ordinary natural draft heater requires up to 50% more oil when set at sufficient draft to burn at rated capacity. It cannot operate at a flame setting as low as the QUAKER 3210.

This chart shows the lowest point at which the ordinary heater will operate. Burning the same amount of oil, the QUAKER 3210 delivers almost 50% more heat into the home!

At the next setting, both heaters are still burning the same amount of oil. See how much extra heat is delivered into your home by the QUAKER 3210.

At a high setting for cold days, the QUAKER 3210 continues to give your home extra heat. Both heaters are still using the same amount of fuel oil.

At this point, the ordinary heater is delivering every bit of heat it possibly can. It is operating at maximum efficiency. And still, the 3210 continues to deliver more and more heat on the same fuel.



YOU ARE PROTECTED AGAINST BITTERLY COLD DAYS WITH A QUAKER 3210. THAT'S BECAUSE THIS REMARKABLE HEATER HAS THE CAPACITY TO DELIVER AS MUCH AS 25% MORE HEAT INTO YOUR HOME . . . 25% MORE HEAT THAN IS POSSIBLE WITH AN ORDINARY HEATER.

- GET THE FUEL-SAVING ECONOMY OF EXTREMELY LOW FIRE
- GET THE TREMENDOUS OUTPUT OF WARMTH AT HIGH FIRE
- GET GREATER EFFICIENCY EVERY STEP OF THE WAY BETWEEN

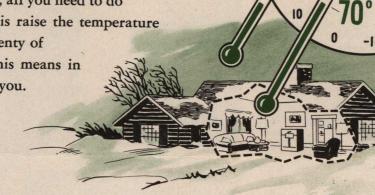
with a QUAKER 3210 OIL HEATER

### HERE'S PROOF OF FUEL SAVINGS WITH A QUAKER "3210"

If you live in a Northern climate, the heater you buy should have the capacity to heat your home to seventy degrees on a day when the outside temperature is as low as ten degrees below zero. However, the average temperature on a winter day

in a Northern climate is not ten degrees below zero. Actually, according to the 58-year history of the weather bureau in a typical Northern city, the average winter temperature is thirty-nine degrees above zero.

Thirty-one degrees! That's the average difference between winter outside and a comfortable seventy degrees in your home. Believe it or not, all you need to do on the average winter day is raise the temperature 31 degrees and you have plenty of warmth. Let us see what this means in lower cost of operation for you.



30

39°

80

-20

90

100



#### AMOUNT OF FUEL USED BY ORDINARY HEATER

AMOUNT OF FUEL USED BY QUAKER 3210

### YOU SAVE UP TO 1/3 IN FUEL

Some days you'll need just a very little heat. And on other days, you'll want every bit of warmth your heater can deliver. But on the average, a rise of thirty-one degrees will keep you comfortable. By comparing the ordinary natural draft heater with the QUAKER 3210 when both are delivering enough heat to raise the inside temperature approximately thirty-one degrees, we find...

THE ORDINARY HEATER REQUIRES
ONE-THIRD MORE FUEL TO DELIVER
THE SAME AMOUNT OF HEAT!

### THE OIL HEATING STORY OF THE YEAR . . .

The ordinary oil space heater requires approximately 500 to 850 gallons of fuel oil to heat a home during an average winter.



#### The QUAKER 3210

requires only 375 to 638 gallons of oil to heat the same amount of space under the same conditions.



THE OWNER OF THE QUAKER 3210 SAVES BETWEEN 125 TO 212 GALLONS OF OIL PER SEASON. THAT'S WHY YOU'LL SAY . . .

### THE QUAKER 3210 PAYS ITS WAY IN THE OIL IT SAVES!



# and it's actually THREE HEATERS IN ONE . . .

### DELIVERS CHILL-CHASING COMFORT AT LOWEST COST

When the temperature is in the fifties, just turn the QUAKER 3210 to low and it coasts along. You get just enough heat to keep you warm and comfortable . . . and you save fuel. That's because the QUAKER 3210

has a lower fuel burning range than heaters of comparable size. You get low-cost comfort automatically.

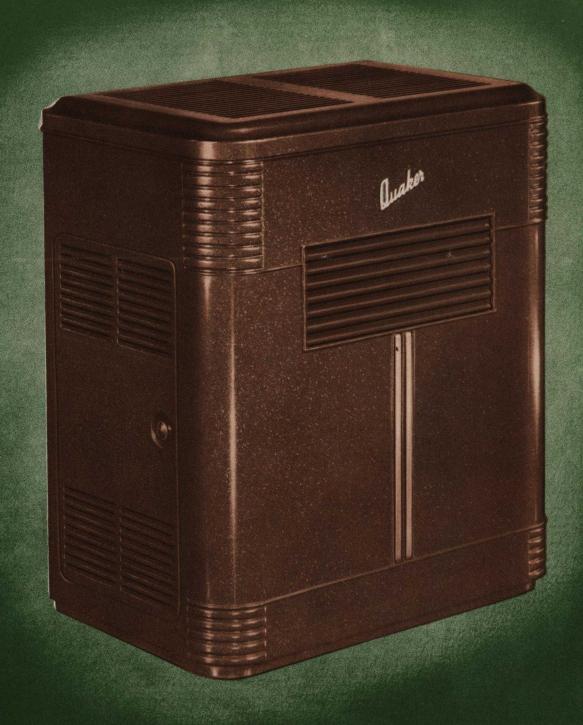
### CONSERVES FUEL ON AVERAGE WINTER DAYS

On average winter days, the QUAKER 3210 is easy on the pocketbook . . . easy on the fuel tank. It's set to deliver maximum efficiency no matter what fuel setting you choose. There's no worry about draft because the 3210 makes every chimney a perfect chimney . . . in any climate . . . in any weather. You get the warmth you want *automatically*.

#### PRODUCES FLOODS OF HEAT ON SUB-ZERO DAYS

The ordinary heater rarely gives you enough heat on frigid, wintry days when the thermometer shows below the zero mark. But you don't worry when you have a QUAKER 3210. It's capable of tremendous output at high fire. And it produces that heat on less fuel than you'd think possible. Best of all, you get that heat automatically.

### QUAKER "3210"



THE FINEST HEATER EVER MADE . . .

### The ONLY heater with QUAKERTROL

You'll take pride in this new QUAKER with its trim, modern lines and rich, brown, baked enamel finish. Yes, and you'll find joy in the downright cozy comfort gently circulating through its spacious grilles. No other heater has ever offered as much in beauty, or in performance as this newest QUAKER model!

### Perfect Heating Guaranteed!

Clean, bright heat at every flame setting . . . more heat from every single drop of oil . . . perfect performance, more economical performance in any home, on any chimney! HOW? With QUAKERTROL—the remarkable invention that only QUAKER owners can enjoy.

### ... And These Features, too!

Big, furnace type heating body, with 79% greater area to radiate warmth throughout your home . . . built-in humidifier for clean, healthy heat . . . built-in thermo-controlled heat circulator that spreads a gentle flow of heat to every nook and corner . . . convenient switch for summer air circulation . . . finger tip control for ease of operation . . . side radiadors for "spot" heat . . . all combine to provide heating performance never before known with an oil-burning space heater! It's no wonder the QUAKER "3210" is the finest heater ever made!



THE EXCLUSIVE QUAKERTROL UNIT



Finger Tip Control
OF HEAT



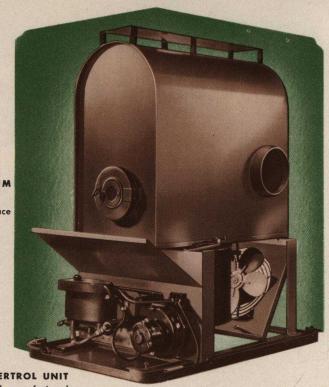
Wall Thermostat
THERMOSTATICALLY CONTROLLED HEAT
(available on the 3210T only)

In terms of Quaker engineers, QUAKERTROL is a device for synchronizing the flow of oil and the flow of air to the burner. In terms of comfort... QUAKERTROL is a fire tender in your home. You turn the dial to the flame setting you want, and QUAKERTROL automatically provides the *right* amount of oil and the *right* amount of air for perfect, economical combustion at the flame setting you select. QUAKERTROL operates independently of the chimney. It supplies its own draft and, at the same time, releases the correct flow of oil for proper burning. 25% and more in fuel savings over any natural draft beater guaranteed! And for even greater convenience... for fully automatic heat, QUAKER owners may have a wall thermostat that constantly keeps the house at the temperature selected by you. The QUAKER wall thermostat is standard equipment on the QUAKER 3210T. It cannot be added to the QUAKER 3210M.

### why QUAKER gives MORE heat...

SUPER HEATING DRUM AND FLAME BAFFLE 79% GREATER heating surface

What makes some heaters better . . . what makes 'QUAKER heaters better for YOU in every possible way? Let's look underneath the beautiful cabinet and see why QUAKER'S heating interior gives performance unequalled in the whole industry.



THE QUAKERTROL UNIT Patented and manufactured exclusively by QUAKER. MEASURES and balances the oil and air feed.

**BUILT-IN HEAT CIRCULATOR**Works automatically to go on and off as needed.

An ordinary fan

blowing on a bed of red hot coals

- MANA-

would

circulate the heat from the coals in a steady, warm wave. The larger the bed of coals the greater would be the amount of heat given off and caught in the fan's air

stream. This extra large heating drum inside the QUAKER 3210 tifically constructed to pick up and pass off the heat generated by the oil fed



is scienflame.

Special flame, baffles control the course of the flame in order that the drum may pick up

more heat and let as little as possible go up the chimney. Just as a large coal bed passes off more heat than a small one, so is a large heating drum capable of picking up more heat than smaller ones. QUAKER'S super heating drum has 79% greater surface for picking up heat. That means more heat for the home, less heat up the chimney. QUAKER'S automatic heat circulator steadily forces a current of air around the super heating drum.

This air stream picks up the heat and carries it in steady warm waves to every corner of the room.

An extra large heating drum to absorb the heat from the burner and a quiet, automatically operated heat circulator to carry the heat throughout the house . . .

they help you get MORE heat . . . cleaner heat . . . with QUAKER!

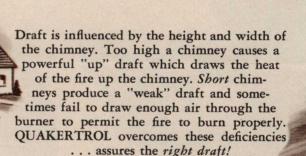


### Why QUAKER Gives CLEANER Heat . . . At LOWER Cost

Do you know that at some time or another, 7 out of 10 chimneys fail to "draw" properly? That without the draft created by the chimney's "drawing" power, the fire chokes, gasps, and fights to stay alive? The result often shows itself in the form of high fuel bills . . . smoky, dirty fires . . . and unsatisfactory service. A clean, bright, "hot" fire is assured only when the chimney is able to draw an even flow of combustion air through the burner.

Here's why some chimneys cause trouble

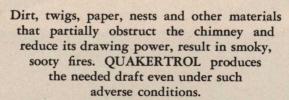
Overhanging trees and adjoining roofs that are higher than the top of the chimney frequently cause down drafts that impair the natural "pull" of the chimney.



Strong winds, air currents and low hanging clouds blanket the chimney and cause wide variations in the normal "draw."

This results in a very unstable fire.

QUAKERTROL corrects this condition!





### NO CHIMNEY TROUBLES WITH QUAKERTROL

QUAKERTROL CREATES ITS OWN DRAFT . . . AUTOMATICALLY DELIVERS THE RIGHT AMOUNT OF AIR TO THE FIRE FOR PROPER BURNING.

With QUAKERTROL the fire never chokes, gasps, or fights for air . . . never smokes, soots, or wastes fuel. That's because QUAKERTROL produces and regulates the volume of air being fed to the fire. A big fire for cold days needs more air than a small fire for mild days. QUAKERTROL automatically adjusts the flow of air to just the right amount needed for every size fire. That means CLEANER heat . . . MORE heat from each gallon of oil burned.

### DIAL YOUR HEAT!

A simple turn of the dial on the beautiful QUAKER "3210" operates QUAKERTROL. AND QUAKERTROL DOES THESE THREE IMPORTANT THINGS AUTOMATICALLY . . . 1. Regulates the flow of oil to the burner.

- 2. Turns on the QUIET electric
  - 3. Operates the air shutter that automatically increases or decreases the volume of air reaching the burner at every fire stage.

AND the famous QUAKER burner is made of stainless steel . . . noted for its ability to give many years





Air Shutter Restricting Air Flow







Air Shutter Allowing Greater Air Flow

LOW FIRE

The dial is set at one or two. A small trickle of oil flows into the burner and the air shutter moves to the position shown. At this setting the shutter permits only a small amount of air to reach the fire. This prevents excessive heat losses up the chimney on low fire. It means that the burner is getting just the right amount of air for a clean, smoke-free flame.

MEDIUM FIRE

The dial is set at three or four. More oil flows to the burner and the air shutter automatically moves to the position shown. This new position provides the greater amount of air the fire needs because of its greater size.

### QUAKERTROL

### makes ANY chimney a GOOD chimney!

QUAKERTROL delivers the correct amount of air to the burner regardless of the natural draft of the chimney. The superior performance of the beautiful QUAKER "3210" becomes

clear when you see how QUAKERTROL works. No other oil burn-

ing space heater creates and automatically adjusts the draft

to fit the size of the fire. Only the QUAKER "3210"

has QUAKERTROL . . . the amazing device that

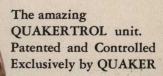
guarantees fuel savings of 25% or MORE over

natural draft heaters . . . prevents smoke and

soot . . . increases heat output.



Open
for Full Air Flow



HIGH FIRE

The dial is set at five or six. Still more oil flows to the burner and the air shutter closes completely! The full draft of air created by the electric blower passes to the burner. This draft is steady and reliable regardless of the condition of the average chimney. A smokeless, soot-free flame and an abundance of heat is a certainty because the QUAKERTROL unit controls the oil AND the air that feeds the flame.

FOR THE UTMOST IN TROUBLE-FREE HEATING COMFORT, SEE THE NEW QUAKER "3210", THE ONLY HEATER WITH QUAKERTROL!



No other heater in the economy price class can compare with the distinctive beauty and low priced heating comfort of QUAKER's New CHALLENGER Models! No other natural draft heater is so constructed that automatic heat circulator and draft booster may be added at low cost.

### A Low Priced HEATER That CHALLENGES Comparison!

The smart, modern styling and rich, brown, baked enamel finish of the CHALLENGER models combine to lend new grace and beauty to any room setting. The CHALLENGER'S amazingly efficient heating unit will spread warmth and comfort to every room corner at a cost so low you'll be amazed!

### HERE ARE SOME OF THE "DELUXE" FEATURES AVAILABLE ON THE CHALLENGERS



- ★ QUAKER'S FAMOUS OIL SAVING BURNER ... provides a wide range of clean burning flame.
- \*AUTOMATIC DRAFT BOOSTER (OPTIONAL)
  ... Saves Fuell Mechanically delivers
  air to the burner when extra air is
  needed for proper burning.
- \* AUTOMATIC HEAT CIRCULATOR (OPTIONAL)...Gently spreads warmth to every room corner.
- ★ EV-R-CLEAR FLAME DOOR...Flame visible at all times.
- ★ BUILT-IN HUMIDIFIER... Easy to get at. Easy to fill.
- ★ FULLY EXTENDED CONTROL ROD...No stooping to adjust fire.
- ★ LEVELING SCREWS... Maintain proper heater level on any floor.
- And many other QUAKER features to make the CHALLENGERS the BEST BUY in the economy price class!

FOR CHALLENGER SPECIFICATIONS AND CAPACITIES SEE BACK COVER



#### THESE LOW PRICED CHALLENGER ACCESSORIES EASILY INSTALLED



### AUTOMATIC FORCED DRAFT BOOSTER (OPTIONAL)

Cuts fuel costs... assures a clean burning, smokeless fire regardless of the draft available on the average chimney. Operates in perfect relation with the flow of oil. Comes on at whatever point extra air is needed for proper burning.



### AUTOMATIC HEAT CIRCULATOR (OPTIONAL)

You'll want to include this heat circulating fan on your CHALLENGER model... works automatically to go on and off as needed. Gently forces air over the extra large heating drum and out into every room ... keeps the whole house comfortably warm.



### ELECTRICALLY OPERATED WALL THERMOSTAT SET (OPTIONAL)

This convenient wall thermostat set will actually tend the fire for you. Just set the thermostat at the temperature you want and let this electric servant do the rest. Day and night the fire is automatically adjusted to keep the room at the desired temperature.

Seventeen



# QUAKER 2006

THE ONLY OIL HEATER IN THIS PRICE
CLASS OFFERING AUTOMATIC DRAFT
BOOSTERS AND AUTOMATIC HEAT
CIRCULATOR AS OPTIONAL EQUIPMENT

This low priced, conveniently sized QUAKER 2006 has been designed specifically to do a BIG heating job in small dwellings.

#### PROVIDES PLUS COMFORT FOR:

- \* TOURIST CABINS
- \* TRAILER HOMES
- \* SUMMER COTTAGES
- \* GARAGES
- \* WORK ROOMS
- \* STORES
- \* OFFICES
- \* WAITING ROOMS

### There are FEATURES Galore in the QUAKER 2006

Like the higher priced QUAKER models, the 2006 provides the same *plus* features of beauty, comfort and economy which distinguish all QUAKER heaters.

QUAKER'S 2006 offers a beautifully designed modern cabinet finished in a smooth, rich brown enamel... the same type fuel-saving burner used on all QUAKER models ... facilities for the simple installation of AUTOMATIC DRAFT BOOSTER and AUTOMATIC HEAT CIRCULATION when desired. The exceptional low price of this convenient, efficient heater makes it the *greatest* heating value ever offered!

THE QUAKER 2006, LIKE THE
CHALLENGER MODELS, IS BUILT FOR
QUICK, LOW COST INSTALLATION
OF AUTOMATIC DRAFT BOOSTER
AND AUTOMATIC HEAT CIRCULATION
AT ANY TIME DESIRED!

FOR SPECIFICATIONS AND CAPACITY SEE BACK COVER.

## SAVE FUEL! Have MORE Heat ... CLEANER Heat with these MONEY-SAVING ACCESSORIES that pay for themselves!



MORE HEAT ... LESS FUEL ...
AUTOMATIC DRAFT BOOSTER

Ordinary oil heaters depend upon the chimney for the draft essential to a good, clean fire. Since most chimneys fail to provide a sufficient draft, better performance is assured when extra air is supplied mechanically. QUAKER'S Automatic Draft Booster quietly supplies a steady draft at whatever point extra air is needed for proper burning. This means fuel savings ... dollar savings ... and clean, bright smokeless fires in ANY home, when attached to ANY chimney!

Every QUAKER Challenger is built for the quick and low cost installation of these automatic accessories. They pay for themselves by the fuel they save!



#### GREATER CONVENIENCE ...

WALL THERMOSTAT SET
When installed with any QUAKER heater this attractive, electrically operated WALL
THERMOSTAT SET actually tends the fire for you. Provides completely automatic control.
No more cold mornings... just set the thermostat at the desired temperature and day and night the fire is automatically adjusted to keep the home at the temperature selected without attention.



MODELS 60T-61T DRAFT BOOSTER

#### MORE COMFORT . . .

#### AUTOMATIC HEAT CIRCULATOR.

You'll want to include this quiet, spring-mounted HEAT CIRCULATOR on your Challenger model for the additional comfort and warmth it will bring to your home. Quiet in operation... automatic in action.

Controlled thermostatically to go on and turn off at regular intervals. Provides complete circulation by gently forcing air around the extra large heating drum and out into the home in warm, comforting waves. And for cooling circulation in the summer, this practical accessory is equipped with a convenient switch for constant circulation of summer air.



# QUAKER "3210"

#### QUAKER THERE'S A

#### FOR EVERY SPACE HEATING JOB

Whether your requirements are for 1, 2, 3 or up to 6 rooms, QUAKER has the heater for you. You'll not only enjoy a maximum of trouble-free heating comfort, but will thrill at the increased charm and beauty QUAKER heaters bring to your home.

#### CONSERVATIVELY RATED

Heater ratings shown below are Standard Ratings determined in accordance with The Oil Heater Standards of the Institute of Cooking and Heating Appliance Manufacturers. As a matter of fact, capacities shown are lower than the maximum obtainable under Institute Standards of Rating. This is in line with the conservative policy that has always characterized published ratings of Quaker Heaters. Map shows heat loss in BTU's per cubic foot of average homes in various sections, from which heating capacities of the various models have been computed. Figures given refer to average construction, without abnormal exposure or unusual glass area. Proper allowance should be made for these factors. Proper allowance also should be made for differences in altitudes. Ratings given are at sea level. For each 1,000 feet above sea level, deduct 4% from heating capacities given.

EXTREME NORTH B. T. U. NORTH CENTRAL 10 B.T.U. SOUTH CENTRAL SOUTH 6 B.T.U.

Specifications and Heating Capacities for Southern, South-Central, North-Central, and Extreme North

		Sections of	of United S	States			
MODEL NUMBER			2006	2008-W	2010-W	2013-W	3210-M 3210-T***
Diameter of Burner, inches			6	8	10	13	10
Height Over-all, inches			331/2	37	39	42	39
Width Over-all, inches			18	23	26	29	33
Depth, including Fuel Tank, Inches			19	251/2	27	30	31
Height to top of Flue Outlet, inches			22	25	25	25	24
Capacity Fuel Tank, gallons			2	4	51/4	51/4	71/4
Approximate Shipping Weight, pounds			70	110	127	160	205
*Fuel Consumption per 24 Hours—Minimum, gallons Maximum, gallons			1½ 5¾	1½ 8¼	103/4	3 141/8	2
Average Fuel Consumption, per 24 Hours, gallons			21/2	31/2	41/2	6	5
**Maximum B.T.U. Output, per hour			23,000	35,000	45 000	59,000	60,000
Average Heating Capacity in Cu. Ft. For Various Sections (See Chart Above)	2 Wall Exposure	South South Central North Central Extreme North	5,100 3,800 3,100 2,600	7,800 5,800 4,700 3,900	10,000 7,500 6,000 5,000	13,100 9,800 7,900 6,600	13,300 10,000 8,000 6,700
	4 Wall Exposure	South South Central North Central Extreme North	3,800 2,900 2,300 1,900	5,800 4,400 3,500 2,900	7,500 5,600 4,500 3,700	9,800 7,400 5,900 4,900	10,000 7,500 6,000 5,000

\*Minimum fuel consumption at .03" draft. Maximum fuel consumption at .03" draft for 3200 Models and .06" draft for 2000 Models.

QUAKER "2013-W"

QUAKER "2006"

2000 Models.

\*\*Ratings on Models 3210-M, 3210-T are based on .03" draft. 2000 Models are based on .06" natural draft or .03" natural draft with Mechanical Draft Booster.

\*\*3210T — Thermostatically controlled.
Construction and design of Quaker Burnoil Heaters are covered by U. S. Patents Nos. 2073270 2157413, 2213862, 2251055, 2275149, 2306443, RE 22276. Other Patents Pending. Copyrighted Quaker Mfg. Co. Printed in USA. 100M-48. Form No. 136.

QUAKER MANUFACTURING CO.. 223 W. ERIE ST.. CHICAGO 10. ILL.

THE FIRST NAME IN OIL HEATERS THE LAST WORD IN EFFICIENCY ...